

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i>			
<u>L18</u>	coated water soluble particle and (polishing pad or pad)	1	<u>L18</u>
<u>L17</u>	water soluble particle and (polishing pad or pad)	101	<u>L17</u>
<u>L16</u>	L14 and l11	1	<u>L16</u>
<u>L15</u>	L14 and l11	0	<u>L15</u>
<u>L14</u>	Dexypearl	2	<u>L14</u>
<u>L13</u>	Dexypearl 100	0	<u>L13</u>
<u>L12</u>	Dexypearl\$3 100	0	<u>L12</u>
<u>L11</u>	JSR RB830	6	<u>L11</u>
<u>L10</u>	polybutadiene and 5523331 [pn]	0	<u>L10</u>
<u>L9</u>	crosslinked polybutadiene and 5523331 [pn]	0	<u>L9</u>
<u>L8</u>	crosslinked polybutadiene and (polishing pad or pad) [clm]	0	<u>L8</u>
<u>L7</u>	crosslinked polybutadiene and (polishing pad or pad) [ab]	0	<u>L7</u>
<u>L6</u>	crosslinked polybutadiene and (polishing pad or pad) [ti]	0	<u>L6</u>
<u>L5</u>	crosslinked polybutadiene and (polishing pad or pad)	5	<u>L5</u>
<u>L4</u>	polybutadiene and (polishing pad or pad)	1509	<u>L4</u>
<u>L3</u>	polybutadiene and 6324703 [pn]	1	<u>L3</u>
<u>L2</u>	1,2-polybutadiene and 6324703 [pn]	1	<u>L2</u>
<u>L1</u>	crosslinked 1,2-polybutadiene and 6324703 [pn]	0	<u>L1</u>

END OF SEARCH HISTORY

09/867541

Art Unit: 1711

1098 and Jrganox 1010 are two suitable antioxidants (col 4, lines 7-12) and they read on components (E) (I) and (E) (II) of instant claim 1 and also those in instant claims 5 & 6. Robinson discloses freeze-thaw stable polyacrylamide emulsions. Maleic-anhydride copolymers, according to patentee, are well known and have been used a viscosity modifiers with polymeric compositions (col 2, lines 48-52).

Use of esterified styrene-maleic anhydride copolymers, as viscosity improvers is also taught by Sivik (col 15, lines 62-67) and Covitch (col 31, lines 47-54).

It would therefore have been obvious to add to the composition of Katsaros, the two antioxidants (of Vogdes) to minimize or eliminate oxidative degradation and the viscosity modifier (of Robinson, Sivik or Covitch) in order to have a better control of flow.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katsaros et al (vsp 5408000) in view of Vogdas (vsp 4540727) further in view of Robinson et al (vsp 5200448), Sivik et al (vsp 5821313) or Covitch (vsp 5707943) as applied to claim 1 above, and further in view of Akkapeddi et al (vsp 5391640).

According to Akkapeddi, potassium halides together with copper halides are useful as heat stabilizes and processing agents for polymeric compositions (col 10, lines 4-16). Such compositions can be used to produce sheets, films, parisons for blow molding etc. (col 11, lines 6-11).

It would have therefore been obvious to include the halides of potassium & copper taught by Akkapeddi into the composition of Katsaros in order to make it resistant to heat.

WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 1 of 1 returned.**☐ 1. Document ID: US 20020010232 A1, JP 2001334455 A, EP 1164559 A1

L18: Entry 1 of 1

File: DWPI

Jan 24, 2002

DERWENT-ACC-NO: 2002-182585

DERWENT-WEEK: 200224

COPYRIGHT 2002 DERWENT INFORMATION LTD

TITLE: Chemical mechanical polishing pad composition for semiconductor wafer, has water-insoluble matrix material containing cross-linked polymer, and coated with water-soluble particles

INVENTOR: HASEGAWA, K; KAWAHASHI, N ; OGAWA, T

PRIORITY-DATA: 2000JP-0161520 (May 31, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20020010232 A1	January 24, 2002		000	C08L001/00
JP 2001334455 A	December 4, 2001		006	B24B037/00
EP 1164559 A1	December 19, 2001	E	000	G09G001/00

INT-CL (IPC): B24 B 37/00; C08 J 9/00; C08 L 1/00; C08 L 21:00; C08 L 63/00; G09 G 1/00

Full	Title	CIT.1	REV.1	CLS.1	REF.1	SEQ.1	ATT.1
CAW.1							

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MAMMOGRAPHY

The invention relates to a type of device for mam-

In mammography devices, the breast to be photo-

graphed is X-rayed both vertically and with the photo-

graphy head being inclined. In known devices, the dis-

placement of the photography head is done manually or

under manual control by means of a motor. The object

to be photographed is placed on the support plate of the

photography head, the height position of which having

been appropriately adjusted. When inclining the pho-

tography head, the centre point of the support plate

moves on a circumference, the centre point of which is

the rotation axis of the photography head, whereby the

centre point rises to a higher position. In order to pro-

vide the proper support for the photographed breast,

the support plate has to be lowered. This is done by

lowering the slide of the photography head, which is

usually done by manually adjustment.

The above tilting operation and the connected height

adjustment of the slide are time-consuming measures

that require great precision, which are simplified by the

present invention.

The present invention is illustrated by reference to

the drawings of which:

FIG. 1 shows a mammography device according to

the invention, the height of which is vertically adjust-

able as shown by the symbol Z;

FIG. 2 shows the device of FIG. 1, which can be

inclined (in the angle α) from the vertical direction (the

tilting shown in the figure is done without automatic

height compensation); FIG. 3 is a schematic partial

section view of the tilting mechanism M1 of the slide

of the device according to the invention; FIG. 4 is a

schematic presentation of the tilting mechanism M2 of

the photography head of the device according to the

invention; FIG. 5 illustrates an optional embodiment of

the device according to the invention, in which the

photography head is horizontally displaceable as shown

by the symbol X (the horizontally displaced photogra-

phy head is indicated by dotted lines); FIG. 6 is a sche-

matic view of the control system of the device accord-

ing to the invention.

The mammography device stands on the support 20.

According to figure 1, the column 3 of the device sup-

ports the slide 2 of the photography head, which is

slidably mounted onto bearings on the column and the

upper end of which comprises an X-ray source 7 and the

lower end a support plate 6. The height of the slide is

adjusted by the actuator M1 (FIG. 3). FIG. 2 shows the

inclination of the photography head about the axis 4 in

the slide (cf. also FIG. 4), whereby the angle of inclina-

tion α with regard to the vertical plane can be as large

as $\pm 100^\circ$. The inclination can be guided either manu-

ally or by means of the actuator M2.

The breast object to be photographing is placed on the

support base 6, the slide having first been adjusted to the

proper height. When needed, a height correcting ad-

justment can be carried out depending on the patient.

Before the photographing, the breast is slightly com-

pressed into position by means of a compression plate

(not shown). The radiation source (X-ray source) 7 is

disposed in the photographing head above the breast

and the recording means, the film, is disposed in the

support plate or underneath the support plate 6.

If desired, the photography head can be tilted, e.g.

45°, the actual angle of inclination being detected by the

detector 8 shown in FIG. 4, e.g. a potentiometer. When

comparing the positions of the photography head in

FIGS. 1 and 2, it can be observed that without the

height compensation of the photography head (FIG. 2)

the support plate rises to a higher position, when the

photography head is being tilted. By connecting the

communication from the angle detector 8 to the control

device 10 according to FIG. 6, a communication is

obtained in the output of the guide device 10 according

to the preset program, which is proportional to the

angle α , and by means of which the actuator M1 is

guided via the amplifier 11 in order to adjust the height

Z of the photography head.

In this manner, the centre point of the support plate 6

is maintained on the same height level with regard to

the support 20, regardless of the angle α . Optionally,

instead of direct proportionality, the control device 10

can be given a form factor/form function describing the

shape of the photographed breast, according to which

the height position of the support plate is corrected so

that it conforms still better to the outline of the cross-

section of the base of the breast.

The control device can also comprise a connection,

by means of which the tilting motor M2 is controlled

according to a specific program or instruction. This is

not shown in the figure. In the embodiment of FIG. 5

the device is further provided with an actuator M3

displacing the photography head horizontally X and

angle α the actuator M3 can be guided via the amplifier

12 according to the program on the control device 10.

The horizontal movement can be guided so as to main-

tain the central point of the support plate 6 essentially

on the same vertical line. Optionally, the photography

head can be horizontally displaced so that the support

plate conforms optimally to the outline of the cross-sec-

tion of the base of the breast.

We claim:

1. A mammography apparatus which comprises a

platform (20), a supporting column (3) mounted on said

platform and projecting upwards therefrom, said col-

umn (3) having bearings, a photography head (1) having

a slide member (2), said slide member being mounted in

said bearings on said supporting column (3) and verti-

cally movable therealong, a support plate (6) positioned

in the lower part of said photography head, said pho-

tography head (1) being mounted tiltable on said slide

member on a substantially horizontal axis (4) whereby

said photography head may be inclined according to an

angle of ± 100 degrees, and when said photography

head is inclined, said support plate (6) rising to a higher

position, a radiation source (7) positioned in the upper

part of said photography head, said photography head

having an initial position, wherein said radiation source

is positioned vertically above and said support plate is

positioned vertically under said horizontal axis; hoisting

means (M1) for effecting vertical movement of said

slide member; tilting means (M2) for effecting pivotal

movement of the photography head around its horizon-

tal axis, and control means (10) for controlling said

hoisting means according to the angle of inclination in

order to maintain a centre point of said support plate (6)

at a constant chosen vertical level with respect to said

platform (20), irrespective of the pivotal movement of

the photography head.

Set Name Query
side by side**Hit Count Set Name**
result set*DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ*

<u>L10</u>	crosslinked 1,2-polybutadiene and (polyvinyl alcohol or polyvinylpyrrolidone or polyacrylic acid or polyethylene oxide or sulfonated polyisoprene)	1	<u>L10</u>
<u>L9</u>	crosslinked 1,2-polybutadiene and protein	1	<u>L9</u>
<u>L8</u>	crosslinked 1,2-polybutadiene and mannitol	1	<u>L8</u>
<u>L7</u>	crosslinked 1,2-polybutadiene and hydroxypropylcellulose	1	<u>L7</u>
<u>L6</u>	crosslinked 1,2-polybutadiene and cellulose	2	<u>L6</u>
<u>L5</u>	crosslinked 1,2-polybutadiene and water soluble particle	1	<u>L5</u>
<u>L4</u>	crosslinked polybutadiene and starch	3	<u>L4</u>
<u>L3</u>	crosslinked 1,2-polybutadiene and starch	1	<u>L3</u>
<u>L2</u>	crosslinked 1,2-polybutadiene and cyclodextrin	1	<u>L2</u>
<u>L1</u>	crosslinked 1,2-polybutadiene	6	<u>L1</u>

END OF SEARCH HISTORY

09/867541

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Printer: cp3_4c07_gbloptr

Summary

Document	Pages	Printed	Missed
US004910756	5	5	0
JP001209047	0	0	0
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<u>L4</u>	crosslinked polybutadiene and starch	3	<u>L4</u>
<u>L3</u>	crosslinked 1,2-polybutadiene and starch	1	<u>L3</u>
<u>L2</u>	crosslinked 1,2-polybutadiene and cyclodextrin	1	<u>L2</u>
<u>L1</u>	crosslinked 1,2-polybutadiene	6	<u>L1</u>

END OF SEARCH HISTORY

Art Unit: 1711

5. . . Under "remarks" in his response filed on Feb. 14, 2000 (paper no. 11), page 3 the applicant correctly points out that Katsaros uses a viscosity modifier which is different from the one that is instantly claimed. Applicant's other argument on page 4, paragraph 2 (of the same paper) that Katsaros does not disclose instantly claimed composition is also correct. That is why the examiner has to rely on secondary references to modify Katsaros, Advantages that can be expected to be gained from combining secondary reference/s with primary reference are laid out earlier.

On page 4, paragraph 3, the applicant states that Vogdes mentions neither blow molding nor weld improvement. Vogdes does not have to mention these. Vogdes has been relied upon solely for its teaching of use of stabilizers. The applicant argues that in no example of Vogdes, two antioxidants are used together. Examples are illustrative and not limitative of the disclosure. Applicant's arguments about Vogdes are therefore not persuasive. On page 4, last paragraph the applicant contends that "the remaining prior art is even further a field". A secondary reference need not be directed to the same subject matter as that of primary reference unless the subject matter taught by the secondary reference excludes its application to the subject matter taught by the primary reference or the applicant establishes so. Applicant's final argument on page 5, paragraph 1, that the examiner offered no explanation of the motivation for combining the references is not ^{at} all persuasive because such motivation/s is/ are set forth in earlier office actions and also in this office action.

WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 6 of 6 returned.**☐ 1. Document ID: US 20020010232 A1

L1: Entry 1 of 6

File: PGPB

Jan 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020010232

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020010232 A1

TITLE: Composition for polishing pad and polishing pad using the same

PUBLICATION-DATE: January 24, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ogawa, Toshihiro	Tokyo		JP	
Hasegawa, Kou	Tokyo		JP	
Kawahashi, Nobuo	Tokyo		JP	

US-CL-CURRENT: 523/448[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[RWC](#) [Draw Desc](#) [Image](#)☐ 2. Document ID: US 5679450 A

L1: Entry 2 of 6

File: USPT

Oct 21, 1997

US-PAT-NO: 5679450

DOCUMENT-IDENTIFIER: US 5679450 A

TITLE: Expanded polyolefin body having thermosetting resin layer directly bonded thereto

DATE-ISSUED: October 21, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tokoro; Hisao	Tochigi-ken			JPX
Sasaki; Hidehiro	Utsunomiya			JPX
Sakaguchi; Masakazu	Utsunomiya			JPX

US-CL-CURRENT: 428/304.4, 428/306.6, 428/308.4, 428/309.9, 428/315.9, 428/327, 428/411.1, 428/420, 428/424.8, 428/482, 521/56, 521/59, 521/60[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[RWC](#) [Draw Desc](#) [Image](#)☐ 3. Document ID: JP 10120844 A, EP 838496 A1

L1: Entry 3 of 6

File: DWPI

May 12, 1998



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Printer: cp3_4c07_gbgndpr

Summary

Document	Pages	Printed	Missed
US005990244	8	8	0
Total (1)	8	8	0

DERWENT-ACC-NO: 1998-232611

DERWENT-WEEK: 199829

COPYRIGHT 2002 DERWENT INFORMATION LTD

TITLE: Modified polybutadiene having improved flexibility - consisting of matrix polymeric non-modified component and dispersoid polymeric component comprising particles of chemically modified and crosslinked 1,2-polybutadiene resin dispersed in matrix resin component

INVENTOR: FUKUI, O; OKAMOTO, N

PRIORITY-DATA: 1996JP-0275932 (October 18, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 10120844 A	May 12, 1998		007	C08L023/10
EP 838496 A1	April 29, 1998	E	011	C08L023/10

INT-CL (IPC): C08 L 23/10; C08 L 23/26; C08 L 47/00; C08 L 51/04; C08 L 51/06

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 4. Document ID: JP 60238334 A, JP 91044576 B

L1: Entry 4 of 6

File: DWPI

Nov 27, 1985

DERWENT-ACC-NO: 1986-016512

DERWENT-WEEK: 198603

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TITLE: Flexible, ultra-thin crosslinked 1,2-polybutadiene foam membrane - is non-water permeable and has good gas permeability

PRIORITY-DATA: 1984JP-0095190 (May 11, 1984)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 60238334 A	November 27, 1985		006	
JP 91044576 B	July 8, 1991		000	

INT-CL (IPC): B29C 55/02; B29K 9/00; B29K 165/04; C08J 9/04

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 5. Document ID: JP 80001643 B, JP 49038170 A

L1: Entry 5 of 6

File: DWPI

Jan 16, 1980

DERWENT-ACC-NO: 1980-10526C

DERWENT-WEEK: 198006

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TITLE: Insulating tape for power cables - comprises fibrous polyolefin paper sheet covered with crosslinked 1,2-polybutadiene layer

PRIORITY-DATA: 1972JP-0081617 (August 15, 1972)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 80001643 B	January 16, 1980		000	
JP 49038170 A	April 9, 1974		000	



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Time: 14:24:23

Document Listing

Document	Selected Pages	Page Range
US005990244	8	1 - 8
Total (1)	8	-

INT-CL (IPC): H01B 7/02; H01B 9/06

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 6. Document ID: JP 53067224 A, JP 84026288 B

L1: Entry 6 of 6

File: DWPI

Jun 15, 1978

DERWENT-ACC-NO: 1978-52655A

DERWENT-WEEK: 197829

COPYRIGHT 2002 DERWENT INFORMATION LTD

TITLE: Laminated floor mat comprising foamed base layer - of crosslinked 1,2-polybutadiene and a decorative layer adhered to the base layer

PRIORITY-DATA: 1976JP-0141847 (November 25, 1976)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 53067224 A	June 15, 1978		000	
JP 84026288 B	June 26, 1984		000	

INT-CL (IPC): A47G 27/02; B29D 27/00; B68G 5/00; C08J 9/04; D06M 15/28

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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Term	Documents
CROSSLINKED.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	96367
CROSSLINKEDS	0
12-POLYBUTADIENE.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	3379
12-POLYBUTADIENES.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	127
(CROSSLINKED ADJ 12-POLYBUTADIENE).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	6
(CROSSLINKED 1,2-POLYBUTADIENE).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	6

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Thanks

1. . . The request filed on March 7, 2000 (paper no. 14) for a Continued Prosecution

Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/944,482 is

acceptable and a CPA has been established. An action on the CPA follows.

2. . . The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. . . Claims 1, 2, 4-6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Katsaros et al (USP 5200448) in view of Vogdas (USP 4540727), further in view of Robinson et al (USP 5200448), Sivik et al (USP 5821313) or Covitch (USP 570794) ^{Ac}

(~~Art~~ references have been cited in earlier office actions, paper nos. 4 & 9).

Katsaros discloses a blow moldable thermoplastic polyamide composition comprising (A) polyamide, (B) first ethylene copolymer, (C) second ethylene copolymer and (D) fibrillar table

polytetrafluoroethylene (abstract). Various additives may be added to the polymer blends (col 4,

lines 48-53).

Though Katsaros suggests the addition of various additives, it does not specify any of

them explicitly.

Vogdes discloses polyamide compositions comprising (A) polyamide, (B) antioxidant

and (C) a compound of a metal of group II or III of the periodic table (col 1, line 16-32). Irganox

WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 6 of 6 returned.**☐ 1. Document ID: US 20020010232 A1

L1: Entry 1 of 6

File: PGPB

Jan 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020010232

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020010232 A1

TITLE: Composition for polishing pad and polishing pad using the same

PUBLICATION-DATE: January 24, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ogawa, Toshihiro	Tokyo		JP	
Hasegawa, Kou	Tokyo		JP	
Kawahashi, Nobuo	Tokyo		JP	

US-CL-CURRENT: 523/448[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[FMMC](#) [Draw Desc](#) [Image](#)☐ 2. Document ID: US 5679450 A

L1: Entry 2 of 6

File: USPT

Oct 21, 1997

US-PAT-NO: 5679450

DOCUMENT-IDENTIFIER: US 5679450 A

TITLE: Expanded polyolefin body having thermosetting resin layer directly bonded thereto

DATE-ISSUED: October 21, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tokoro, Hisao	Tochigi-ken			JPX
Sasaki, Hidehiro	Utsunomiya			JPX
Sakaguchi, Masakazu	Utsunomiya			JPX

US-CL-CURRENT: 428/304.4, 428/306.6, 428/308.4, 428/309.9, 428/315.9, 428/327, 428/411.1, 428/420, 428/424.8, 428/482, 521/56, 521/59, 521/60[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[FMMC](#) [Draw Desc](#) [Image](#)☐ 3. Document ID: JP 10120844 A, EP 838496 A1

L1: Entry 3 of 6

File: DWPI

May 12, 1998

Art Unit: 1711

5. Applicant's arguments filed July 04, 2000 (paper no. 14) have been fully considered but they are not persuasive.

On page 5, paragraph 2, the applicants state that Ikeda does not describe the (claimed) article. The examiner has noticed this fact (see Office action paper no. 12, page 3, paragraph 3). According to the examiner it is within the expertise of one of ordinary skill in the art to prepare articles of various shapes and sizes, unless proved otherwise. Though Ikeda fails to disclose injection molding and articles so molded, this deficiency is compensated by Cogswell.

In response to applicant's argument that motivation for combining are presented in earlier office action, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicants' other argument (page 7, paragraph 2) that "combining the injection molding process of Cogswell with the heat lamination process of Ikeda is not reasonable nor suggested" is not persuasive because as can be seen from page 3, paragraph 2 of office action, paper no. 12, the

DERWENT-ACC-NO: 1998-232611

DERWENT-WEEK: 199829

COPYRIGHT 2002 DERWENT INFORMATION LTD

TITLE: Modified polybutadiene having improved flexibility - consisting of matrix polymeric non-modified component and dispersoid polymeric component comprising particles of chemically modified and crosslinked 1,2-polybutadiene resin dispersed in matrix resin component

INVENTOR: FUKUI, O; OKAMOTO, N

PRIORITY-DATA: 1996JP-0275932 (October 18, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 10120844 A	May 12, 1998		007	C08L023/10
EP 838496 A1	April 29, 1998	E	011	C08L023/10

INT-CL (IPC): C08 L 23/10; C08 L 23/26; C08 L 47/00; C08 L 51/04; C08 L 51/06

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Clip Img	Image
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☐ 4. Document ID: JP 60238334 A, JP 91044576 B

L1: Entry 4 of 6

File: DWPI

Nov 27, 1985

DERWENT-ACC-NO: 1986-016512

DERWENT-WEEK: 198603

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TITLE: Flexible, ultra-thin crosslinked 1,2-polybutadiene foam membrane - is non-water permeable and has good gas permeability

PRIORITY-DATA: 1984JP-0095190 (May 11, 1984)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 60238334 A	November 27, 1985		006	
JP 91044576 B	July 8, 1991		000	

INT-CL (IPC): B29C 55/02; B29K 9/00; B29K 165/04; C08J 9/04

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 5. Document ID: JP 80001643 B, JP 49038170 A

L1: Entry 5 of 6

File: DWPI

Jan 16, 1980

DERWENT-ACC-NO: 1980-10526C

DERWENT-WEEK: 198006

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TITLE: Insulating tape for power cables - comprises fibrous polyolefin paper sheet covered with crosslinked 1,2-polybutadiene layer

PRIORITY-DATA: 1972JP-0081617 (August 15, 1972)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 80001643 B	January 16, 1980		000	
JP 49038170 A	April 9, 1974		000	

Art Unit: 1711

examiner has made it clear to use the injection molding process as an alternate process of molding.

The declaration filed has been fully considered. It presents data from experiment I (according to Ikeda) and experiment 2 (according to Yoshimitsu). It is seen that these data are not persuasive because they are based on separate disclosures. The rejection is based on a combination of disclosures. The said declaration is not probative to establish the nonobviousness of instant claims 6-9.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to U. K. Rajguru whose telephone number is (703) 308-3224. The examiner can normally be reached on Monday-Friday from 9:30 am to 6:00 pm.

INT-CL (IPC): H01B 7/02; H01B 9/06

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 6. Document ID: JP 53067224 A, JP 84026288 B

L1: Entry 6 of 6

File: DWPI

Jun 15, 1978

DERWENT-ACC-NO: 1978-52655A

DERWENT-WEEK: 197829

COPYRIGHT 2002 DERWENT INFORMATION LTD

TITLE: Laminated floor mat comprising foamed base layer - of crosslinked 1,2-polybutadiene and a decorative layer adhered to the base layer

PRIORITY-DATA: 1976JP-0141847 (November 25, 1976)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 53067224 A	June 15, 1978		000	
JP 84026288 B	June 26, 1984		000	

INT-CL (IPC): A47G 27/02; B29D 27/00; B68G 5/00; C08J 9/04; D06M 15/28

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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Term	Documents
CROSSLINKED.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	96367
CROSSLINKEDS	0
12-POLYBUTADIENE.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	3379
12-POLYBUTADIENES.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	127
(CROSSLINKED ADJ 12-POLYBUTADIENE).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	6
(CROSSLINKED 1,2-POLYBUTADIENE).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	6

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Art Unit: 1711

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jim Seidleck, can be reached on (703) 308-2462. The fax phone number for the

organization where this application or proceeding is assigned is (703) 305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 308-0661.

U. Rajguru/vr

10-10-00

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i>			
<u>L12</u>	l1 and l3 and starch	6	<u>L12</u>
<u>L11</u>	l1 and l3 and lactose	1	<u>L11</u>
<u>L10</u>	l1 and l3 and dextrin	1	<u>L10</u>
<u>L9</u>	l1 and l3 and l5	1	<u>L9</u>
<u>L8</u>	l1 and l3	55	<u>L8</u>
<u>L7</u>	l1 and l4	1	<u>L7</u>
<u>L6</u>	l1 and l4 and l5	1	<u>L6</u>
<u>L5</u>	cyclodextrin	13606	<u>L5</u>
<u>L4</u>	crosslinked 1,2-polybutadiene	6	<u>L4</u>
<u>L3</u>	1,2-polybutadiene	3425	<u>L3</u>
<u>L2</u>	polybutadiene	53840	<u>L2</u>
<u>L1</u>	pad or polishing pad	392522	<u>L1</u>

END OF SEARCH HISTORY

Art Unit: 1711

5. Applicant's arguments filed July 04, 2000 (paper no. 14) have been fully considered but they are not persuasive.

On page 5, paragraph 2, the applicants state that Ikeda does not describe the (claimed) article. The examiner has noticed this fact (see Office action paper no. 12, page 3, paragraph 3). According to the examiner it is within the expertise of one of ordinary skill in the art to prepare articles of various shapes and sizes, unless proved otherwise. Though Ikeda fails to disclose

injection molding and articles so molded, this deficiency is compensated by Cogswell.

In response to applicant's argument that (motivation for combining are presented in earlier office action), the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re*

Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicants' other argument (page 7, paragraph 2) that "combining the injection molding process of Cogswell with the heat lamination process of Ikeda is not reasonable nor suggested" is not persuasive because as can be seen from page 3, paragraph 2 of office action, paper no. 12, the

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Term	Documents
(3 AND 5 AND 1).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	1
(L1 AND L3 AND L5).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	1

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L9

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L9	11 and 13 and 15	1	L9
L8	11 and 13	55	L8
L7	11 and 14	1	L7
L6	11 and 14 and 15	1	L6
L5	cyclodextrin	13606	L5
L4	crosslinked 1,2-polybutadiene	6	L4
L3	1,2-polybutadiene	3425	L3
L2	polybutadiene	53840	L2
L1	pad or polishing pad	392522	L1

DETERGENT COMPOSITIONS CONTAINING ETHOXYLATED AMINES HAVING CLAY SOIL REMOVAL/ANTI-REDEPOSITION PROPERTIES

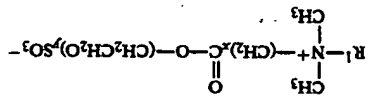
This is a continuation of application Ser. No. 125,723, filed Nov. 30, 1987, now abandoned; which is a continuation of application Ser. No. 709,960, filed Mar. 3, 1985, now abandoned, which is a continuation of application Ser. No. 452,646, filed Dec. 23, 1982, now U.S. Pat. No. 4,597,898.

TECHNICAL FIELD

The present application relates to ethoxylated amines having clay-soil removal/anti-redposition properties used in detergent compositions.

A particularly important property of a detergent composition is its ability to remove particulate type soils from a variety of fabrics during laundering. Perhaps the most important particulate soils are the clay-type soils. Clay soil particles generally comprise negatively charged layers of aluminosilicates and positively charged cations (e.g. calcium) which are positioned between and hold together the negatively charged layers.

A variety of models can be proposed for compounds which would have clay soil removal properties. One model requires that the compound have two distinct characteristics. The first is the ability of the compound to adsorb onto the negatively charged layers of the clay particle. The second is the ability of the compound, once adsorbed, to push apart (well) the negatively charged layers so that the clay particle loses its cohesive force and can be removed in the wash water. One class of clay-soil removal compounds which appears to work according to this model are the polyethoxy zwittionic surfactants disclosed in U.S. Pat. No. 4,301,044 to Wentler et al., issued Nov. 17, 1981. Representative of such compounds are those having the formula:



wherein R' is a C₁₄-C₂₀ alkyl group; x is 1 or an integer of from 3 to 5; and y is from 3 to 12. See also U.S. Pat. No. 3,929,678 to Laughlin et al., issued Dec. 30, 1975 (detergent composition containing polyethoxy zwittionic surfactant plus other detergent surfactants); U.S. Pat. No. 3,925,262 to Laughlin et al., issued Dec. 9, 1975 (detergent containing polyethoxy zwittionic surfactants with detergent builders); U.S. Pat. No. 4,157,277 to Gosselink et al., issued June 26, 1979 (C₄ polyoxyalkylene zwittionic surfactants useful in detergent compositions); U.S. Pat. No. 4,165,334 to Gosselink et al., issued Aug. 21, 1979 (sulfonium-type polyethoxy zwittionic surfactants). These polyethoxy zwittionic surfactants are generally compatible with other detergent surfactants such as the nonionic, zwittionic and amphoteric types. However, as indicated in the Wentler et al. patent, most anionic surfactants interfere with the particulate soil removal performance of these compounds; anionic soils such as fatty acids likewise interfere. Because anionic detergent surfactants form the most important class of such materials for use in detergent compositions, the

lack of compatibility between these polyethoxy zwittionic surfactants and anionic surfactants poses a significant handicap where particulate (clay) soil removal is desired.

In addition to clay soil removal, one of the other properties mentioned in the Laughlin et al. patents with regard to these polyethoxy zwittionic surfactants is the ability to keep the removed soil in suspension during the laundering cycle. Soil which is removed from the fabric and suspended in the wash water can redeposit onto the surface of the fabric. This redeposited soil causes a dulling or "graying" effect which is especially noticeable on white fabrics. Because soil is normally hydrophobic, this graying effect is a particularly important problem for those fabrics made in total or in part from hydrophobic fibers, e.g. polyester.

To minimize this problem, anti-redposition or whitening maintenance agents can be included in the detergent composition. Besides the previously mentioned polyethoxy zwittionic surfactants, there are a variety of other compounds which can be used as anti-redposition agents. One class of agents are the water-soluble copolymers of acrylic or methacrylic acid with acrylic or methacrylic acid-ethylene oxide condensates disclosed in U.S. Pat. No. 3,719,647 to Hardy et al., issued Mar. 6, 1973. Another class of anti-redposition agents are the cellulose and carboxymethylcellulose derivatives disclosed in U.S. Pat. No. 3,597,416 to Diehl, issued Aug. 3, 1971 (ionic combination of dodecyltrimethyl phosphonium chloride and sodium carboxymethylcellulose), and U.S. Pat. No. 3,523,088 to Dean et al., issued Aug. 4, 1970 (anti-redposition agent consisting of alkali metal carboxymethylcellulose and hydroxypropylcellulose). A mixture of compounds has also been used to provide not only anti-redposition, but also clay soil removal properties. See U.S. Pat. No. 4,228,044 to Cambre, issued Oct. 14, 1980, which discloses detergent compositions having anti-redposition and clay soil removal properties which can comprise a nonionic alkyl polyethoxy surfactant, a polyethoxy alkyl quaternary cationic surfactant and a fatty amide surfactant.

These anti-redposition agents do have a number of significant handicaps. While effective to keep soil suspended, these compounds may lack additional clay soil removal properties. Moreover, as disclosed in the Diehl and Dean et al. patents, mixtures of compounds can be required to achieve the anti-redposition benefit. To the extent that there are combined anti-redposition/clay soil removal benefits as disclosed in the Cambre patent, mixtures of compounds are also required. It is therefore an object of the present invention to provide compounds useful in detergent compositions which provide particulate soil, in particular clay soil, removal benefits. It is a further object of the present invention to provide compounds useful in detergent compositions which provide clay soil removal benefits and are anti-ionic detergent surfactant compatible. It is yet another object of the present invention to provide compounds useful in detergent compositions having anti-redposition properties. It is yet a further object of the present invention to provide compounds useful in detergent compositions which combine both clay soil removal and anti-redposition properties.

WEST

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 1. Document ID: US 20020010232 A1

L12: Entry 1 of 6

File: PGPB

Jan 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020010232
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020010232 A1

TITLE: Composition for polishing pad and polishing pad using the same

PUBLICATION-DATE: January 24, 2002

INVENTOR- INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ogawa, Toshihiro	Tokyo		JP	
Hasegawa, Kou	Tokyo		JP	
Kawahashi, Nobuo	Tokyo		JP	

US-CL-CURRENT: 523/448

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMAC	Draw Desc	Image
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2. Document ID: US 6346200 B1

L12: Entry 2 of 6

File: USPT

Feb 12, 2002

US-PAT-NO: 6346200
DOCUMENT-IDENTIFIER: US 6346200 B1

TITLE: Oxygen scavengers independent of transition metal catalysts

DATE-ISSUED: February 12, 2002

INVENTOR- INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rooney; Michael Laurence	Lane Cove			AUX

US-CL-CURRENT: 210/757; 210/750, 252/188.21, 252/188.25, 252/188.28, 252/397, 426/107,
428/411.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	IMC	Draw Desc	Image
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3. Document ID: US 6324703 B1

L12: Entry 3 of 6

File: USPT

Dec 4, 2001

US-PAT-NO: 6324703
DOCUMENT-IDENTIFIER: US 6324703 B1

TABLE 8-continued

Sample No.	Chemical structure	Film characteristics	Water resistance	Transparency	Smoothness	Imme. After	Foaming properties
58	$\text{C}_m\text{H}_{2m+2}-\text{P}-\text{O}-\text{C}_2\text{H}_4\text{O}-\text{C}(=\text{O})-\text{N}^{\oplus}(\text{CH}_3)_3\text{Cl}^{\ominus}$						
59	$\text{R}_{11}, \text{R}_{12} = \text{Octyl}$						
60	$\text{R}_{11}, \text{R}_{12} = \text{Dodecyl}$						
61	$\text{Y} = \text{Cumyl}$ $\text{R}_{18} = \text{H}$						
62	$\text{Y} = \text{C}_6\text{H}_5\text{CH}_2\text{CH}_2$ $\text{R}_{18} = \text{H}$						
63	$\text{C}_m\text{H}_{2m} = \text{C}_{12}-\text{C}_{14}$ Alkylene $\text{P} = 2$						
64	$\text{C}_m\text{H}_{2m} = \text{C}_{12}-\text{C}_{14}$ Alkylene $\text{P} = 2$						
65	$\text{C}_m\text{H}_{2m} = \text{C}_{18}$ Alkylene $\text{P} = 2$						
66	$\text{C}_m\text{H}_{2m+1} = \text{C}_{12}-\text{C}_{14}$ sec. Alkylene $\text{P} = 1$						
67	$\text{C}_m\text{H}_{2m+1} = \text{C}_{18}$ sec. Alkylene $\text{P} = 1$						
68	$\text{R}_{11} = \text{Octyl}$ $\text{R}_{12} = \text{H}$						
69	$\text{R}_{11} = \text{Dodecyl}$ $\text{R}_{12} = \text{H}$						

The polymer emulsions were prepared in the same manner as in Example 8, except that a mixture of (a) chloroglycine betaine ester of the ethylene oxide (i.e. EO) addition products of dialkyl phenol, cumyl phenol, aralkyl phenol, and alkane diol and (b) the EO addition products of dialkyl phenol, cumyl phenol, aralkyl phenol, and alkane diol listed in Table 2 in an amount of (a)/(b)=9/1 (weight ratio) was used as the emulsifying agent. The emulsifying agents were prepared in such a manner that, when the betaine ester (a) was prepared very little foaming during the emulsion polymerization. Furthermore, it was visually observed that there was resultant polymer emulsion.

When the surfactant component (b), (i.e., the alkoxylate) was not used in the sample Nos. 70, 73, 74, and 75, the particle sizes of the polymer emulsion were 0.18, 0.21, 0.17, and 0.25 μm , respectively. As is clear from the results shown in Table 9, the use of the surfactant component (b) decreases the particle size of the resultant polymer emulsion.

The polymer films were determined in the same manner as in Example 8. The results are shown in Table 9.

When the surfactant component (b), (i.e., the alkoxylate) was not used in the sample Nos. 70, 73, 74, and 75, the particle sizes of the polymer emulsion were 0.18, 0.21, 0.17, and 0.25 μm , respectively. As is clear from the results shown in Table 9, the use of the surfactant component (b) decreases the particle size of the resultant polymer emulsion.

Furthermore, it was visually observed that there was very little foaming during the emulsion polymerization.

TABLE 9

Sample No.	Chemical Structure	Particle size (μm)	Film Characteristics	Water resistance	Transparency	Smoothness	Foaming properties	After 30 sec.	After 2 min.
70		1 = 3	0.04	58	9	•	48	20	4
71		1 = 6	0.07	43	6	•	58	22	7
72		1 = 3	0.05	67	8	•	41	16	8
73		1 = 6	0.10	45	10	•	47	19	11
74		1 = 6	0.08	52	9	•	45	18	7
75		1 = 3	0.09	33	10	•	40	17	5
76		1 = 3	0.06	45	11	•	43	21	5
77		1 = 6	0.08	37	7	•	52	24	12

from the EO addition products (b), the EO addition products (b) in the above-mentioned ratio remained in the reaction mixture as an unreacted component. The particle sizes of the resultant polymer emulsions were determined by a Coulter counter (manufactured by Coulter Electronics Inc. Ltd.). The results are shown in Table 9.

From the polymer emulsions obtained above, polymer films were formed in the same manner as in Example 8 and the characteristics and foaming properties of

The emulsion polymerization of ethyl acrylate and methyl methacrylate was carried out in the same manner as in Example 8, except that the chloroglycolic betaine ester of polyoxyethylene dioctyl phenyl ether having various average ethylene oxide addition mole number (i.e., EOP) shown in Table 10 was used as the emulsifying agent.

TITLE: Strong, soft, tear resistant insulating compositions and composites for extreme cold weather use

DATE-ISSUED: December 4, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chen; John Y.	Pacifica	CA		

US-CL-CURRENT: 2/458; 128/857, 2/2.11, 2/2.16, 2/410, 2/423, 2/424, 2/428, 2/455, 2/456, 2/457, 2/54, 2/69, 2/79, 66/171, 66/178R, 66/184, 66/185, 66/187

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 4. Document ID: US 5888701 A

L12: Entry 4 of 6

File: USPT

Mar 30, 1999

US-PAT-NO: 5888701

DOCUMENT-IDENTIFIER: US 5888701 A

TITLE: Method for making a flexographic printing plate from a flexographic printing element having a powder layer

DATE-ISSUED: March 30, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fan; Roxy	E. Brunswick	NJ		

US-CL-CURRENT: 430/306; 430/270.1, 430/273.1, 430/291, 430/300, 430/309, 430/327, 430/328, 430/944, 430/945

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 5. Document ID: US 5888697 A

L12: Entry 5 of 6

File: USPT

Mar 30, 1999

US-PAT-NO: 5888697

DOCUMENT-IDENTIFIER: US 5888697 A

TITLE: Flexographic printing element having a powder layer

DATE-ISSUED: March 30, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fan; Roxy Ni	E. Brunswick	NJ		

US-CL-CURRENT: 430/273.1; 430/291, 430/300, 430/306, 430/309, 430/5, 430/945

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 6. Document ID: US 5580679 A

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L12: Entry 6 of 6

File: USPT

Dec 3, 1996

US-PAT-NO: 5580679

DOCUMENT-IDENTIFIER: US 5580679 A

TITLE: Nonaqueous battery

DATE-ISSUED: December 3, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tanaka; Mitsutoshi	Kanagawa			JPX

US-CL-CURRENT: 429/185; 429/171, 429/173

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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